Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's Rules to	)	CC Docket No. 94-102
Ensure Compatibility with Enhanced	)	
911 Emergency Calling Systems	)	
	)	
Wireless E911 Phase II Implementation	)	
Plan of Nextel Communications, Inc.	)	

NEXTEL COMMUNICATIONS, INC.
PHASE I AND PHASE II E911 QUARTERLY REPORT
November 1, 2004

To: Chief, Wireless Telecommunications Bureau
Chief, Enforcement Bureau

INTRODUCTION

Pursuant to the October 12, 2001, Order of the Federal Communications Commission ("Commission" or "FCC") in CC Docket No. 94-102,[1] Nextel Communications, Inc. ("Nextel") respectfully submits this Enhanced 911 ("E911") Quarterly Report on its implementation of Phase I and Phase II E911.

Nextel continues to devote substantial resources to E911 and has deployed 619 public safety answering points ("PSAPs") with Phase II E911 service since it achieved its first Phase II benchmark per Nextel's Waiver Order.[2] During this same period, Nextel brought its total Phase I deployments to 1083 PSAPs. Since its August 2, 2004, Report, Nextel has deployed an additional 78 PSAPs with E911 Phase II service. Significantly,

[1] *In the Matter of Revision of the Commission's Rules To Ensure Compatibility With Enhanced 911 Emergency Calling Systems, Wireless E911 Phase II Implementation Plan of Nextel Communications, Inc.*, Order, CC Docket No. 94-102, FCC 01-295, released October 12, 2001 ("Waiver Order").

[2] Per the Waiver Order, Nextel was required to begin selling and activating an A-GPS capable handset on October 1, 2002.

Nextel deployed E911 Phase II service to the California Highway Patrol in the County of Los Angeles.

As demonstrated by these activities, Nextel is committed to providing its customers and public safety officials with Phase II E911 as soon as possible. As Nextel described in its August 2, 2004, quarterly report, however, a latent software defect in certain Assisted Global Positioning Satellite ("A-GPS") handsets Motorola manufactured and provided to Nextel resulted in a malfunction of the E911 Phase II location capability in all of Nextel's Phase II-compliant handsets as of the evening of July 17, 2004. Reestablishing these handsets' ability to generate and transmit Phase II information requires changes to both the Nextel network and to each affected handset. Nextel and Motorola Inc. ("Motorola") have upgraded the network and are now currently addressing the second phase of the issue, which requires updating, or "reflashing," the software in affected A-GPS capable handsets currently in use.

Herein, Nextel provides an update on it actions to address this A-GPS handset issue as well as on the state of its Phase I and Phase II progress, including a listing of all deployed and pending requests for Phase I and Phase II E911 service. Nextel also notes herein that it has a limited number of non-A-GPS capable BlackBerry 7510 units in its inventory that might be sold after December 1, 2004, but in no event after February 1, 2005. Such sales should be *de minimis*, constituting less than 0.15% of all devices activated on Nextel's network.

BACKGROUND

In its Waiver Request seeking an October 2002 Phase II E911 implementation date, Nextel affirmed that it could not launch on October 1, 2001, because no GPS

capability existed for the integrated digital enhanced network ("iDEN") platform and it was not technologically possible to develop an iDEN A-GPS handset capable of delivering FCC-compliant automatic location information ("ALI") prior to October 1, 2002. Moreover, the iDEN air interface, which is used by few other carriers and only on a regional basis, is supported by only one manufacturer: Motorola. After carefully analyzing and testing multiple location technologies, including a network-based solution and a hybrid network and handset solution known as Enhanced Observed Time Difference of Arrival, Nextel determined that the best, and in fact the only, technology option for bringing its iDEN network into compliance with the Commission's E911 Phase II accuracy requirements was to deploy the A-GPS solution.[3] Nextel, along with Motorola and the other vendors required to support E911, devoted substantial resources to develop, test, and install network hardware and software, and to develop, test and launch A-GPS capable iDEN handsets.

The Waiver Order found that Nextel faced "special circumstances that affect its deployment of Phase II."[4] Accordingly, the Commission imposed the following Phase II E911 implementation benchmarks:

October 1, 2002:	Begin selling and activating A-GPS-capable handset;
December 31, 2002:	Ensure that at least 10% of all new handsets activated are A-GPS-capable;

[3] *See* Waiver Order at ¶ 16-17; Nextel Communications, Inc. and Nextel Partners, Inc. Joint Report on Phase II Location Technology Implementation and Request For Waiver, at 11-17, filed November 9, 2000.

[4] Waiver Order at ¶19. The Commission also stated "it is reasonable to expect that Nextel might find it more difficult to meet the same schedule as carriers employing the more common air interfaces, because location technology vendors and equipment manufacturers will have substantial incentives to introduce ALI products first for those segments of the market with larger market share. In addition, iDEN is a proprietary Motorola technology and, to the extent that a location technology requires new or modified handsets and network equipment, Nextel must rely on Motorola as a sole source provider." *Id.*

December 1, 2003: Ensure that at least 50% of all new handsets activated are A-GPS-capable;

December 1, 2004: Ensure that 100% of all new digital handsets activated are A-GPS-capable;

December 31, 2005: 95% of all subscriber handsets in service are A-GPS-capable.[5]

To date Nextel has achieved its first two benchmarks,[6] and continues to deploy E911 service at a rapid pace. Unfortunately, problems such as inadequate funding at local, state and federal levels, have impeded PSAP deployment efforts and resulted in a lack of PSAPs that are Phase II capable. Thus, the vast majority of PSAPs throughout the country are incapable of receiving and using a caller's latitude and longitude and, given the *status quo*, most PSAPs likely will not be ready to deploy Phase II service in the near future and perhaps even longer.

DISCUSSION

A. A-GPS Capable Handsets

Since the launch of its first A-GPS capable handset, the i88, on October 1, 2002, in compliance with its first Phase II handset deployment benchmark, Nextel has continued to introduce new A-GPS handsets, while phasing out non-A-GPS handsets, to drive penetration of location functionalities into its subscriber base. As of today, nearly all handsets Nextel offers for sale are A-GPS capable.[7] Nextel's A-GPS capable handset portfolio includes the following models: i58sr, i88s, i205, i305, i530, i710, i730, i733,

[5] Waiver Order at ¶37.

[6] On October 1, 2002, Nextel launched its first A-GPS handset and turned on its first Phase II PSAP, thus fulfilling its first benchmark. In February of 2004, Nextel reported that 12% of all new activations between December 31, 2002, and November 30, 2003, were A-GPS capable, thus fulfilling its second benchmark.

[7] The BlackBerry 7510 is not A-GPS capable. Nextel will offer an A-GPS capable BlackBerry by December 1, 2004.

i830, the eleven i736 NASCAR Nextel Cup series handsets,[8] and its newest model, the i860 camera phone. Nextel actively markets these handsets' location capabilities and takes special steps to put these A-GPS compatible phones into the hands of its subscribers.

The FCC requires that handset based Phase II solutions provide the location of wireless calls within 50 meters for 67 percent of calls and within 150 meters for 95 percent of calls.[9] Based on the guidelines provided by the FCC's Office of Engineering and Technology, Nextel—via an independent third-party consultant—completed its accuracy testing prior to launching and met the Commission's standards.

B. A-GPS Handset Issue

On July 19, 2004, Nextel's sole handset vendor, Motorola, notified Nextel of a problem affecting Motorola i205, i305, i530, i710, i730, i733, i736, and i830 handsets. A latent problem in the software of these handsets rendered all A-GPS services unusable as of midnight, Greenwich Mean Time, July 18. To ensure that this software problem did not cause 911 calls from the affected handsets to drop, Nextel temporarily disabled the network component of its Phase II E911 A-GPS service, thus transmitting to PSAPs the caller's voice, nearest cell site location, and call-back number, *i.e.*, Phase I E911. Nextel immediately informed all of its Phase II-deployed PSAPs of this problem and of the need to temporarily limit Nextel's E911 functionality to Phase I.

[8] Nextel markets ten NASCAR Nextel Cup Series Driver Phones, each featuring the number and unique design, colors, and signature of a particular driver. The lone NASCAR Nextel Cup Series Phone displays a checkered flag and an enlarged NASCAR Nextel Cup Series logo. Collectively, these handsets share the Motorola i736 model name.

[9] 47 C.F.R. § 20.18(h)(2). *See also*, "Guidelines for Testing and Verifying the Accuracy of Wireless E911 Location Systems," OET BULLETIN No. 71 (April 12, 2000).

The permanent solution to this A-GPS problem requires a two-part fix involving the network and the handsets. The first part was an upgrade to Nextel's network to re-enable the transmission of latitude and longitude to Phase II deployed PSAPs. This network upgrade was successfully deployed in Nextel's network on July 25, 2004.

The second part of the solution requires updating the Motorola software in the affected handsets, including those already in customers' hands as well as those in Nextel's and Motorola's inventories. Motorola quickly developed software that addresses the A-GPS issue in every affected model. Nextel's web site provides customers information on self-reflashing their handsets at no charge. All of Nextel's stores and service centers are set up to reflash customer handsets, and, as a matter of course, whenever a customer brings a handset in for any reason, Nextel updates its software at no cost to the customer. Independent dealerships that carry Nextel handsets are also capable of reflashing customer handsets, and Motorola has put in place an incentive program for dealers to reflash a handset brought in for any reason. In addition, Nextel and Motorola are currently offering Nextel customers incentives to reflash their handsets themselves (*i.e.*, a sweepstakes entry and a free trial subscription to a handset GPS-based direction service, TeleNav). It is currently too soon to measure how effective these efforts may be, but Nextel will carefully analyze customers' response and continue to develop and refine techniques to encourage our customers to reflash their affected handsets.

The network upgrade noted above ensures that Nextel's network is capable of identifying whether a 911 call is being placed from a handset updated with the new

software, or from a non-updated phone.[10] If a call is placed from an updated handset, that handset will automatically calculate its GPS location and Nextel's network will transmit E911 Phase II location information (assuming the PSAP is capable of receiving Phase II information) to that PSAP. If a 911 call is placed from a handset without the updated software, the handset will not attempt a GPS fix so Nextel will transmit Phase I information to the PSAP.[11]

C. Phase I Requests

With respect to the Commission's requirement that Nextel provide "information on all pending Phase I and Phase II requests,"[12] Nextel has attached an Appendix listing all of its 610 pending Phase I requests and their current status.[13] For each of the on-going Phase I deployment efforts, the Appendix provides, as required by the Commission, the master PSAP registry identification number ("PSAP ID"), PSAP name, PSAP state, PSAP county, request date, whether the request is valid,[14] a projected deployment date,

[10] Importantly, the network changes required to differentiate between the handsets with old versus new software requires that Nextel also upgrade the software in its i58sr and i88s A-GPS handsets even though they were not directly impacted by the A-GPS software defect.

[11] Because the GPS software defect causes the handset to shut down and automatically reboot upon achieving a GPS fix, the handsets without the updated software cannot be allowed to generate a GPS fix. Doing so would cause the 911call to terminate at the moment GPS location information is generated.

[12] *See* Waiver Order at ¶32.

[13] On June 6, 2003, the Commission released a Public Notice setting forth uniform requirements governing the Appendix format in which carriers submit Phase I and Phase II deployment information with each Quarterly Report. Per these requirements, Nextel has attached an Appendix listing all of its E911 deployments. *See* Public Notice, *Wireless Telecommunications Bureau Standardizes Carrier Reporting on Wireless E911 Implementation*, CC Docket No. 94-102, rel. June 6, 2003.

[14] Per the Waiver Order, Nextel is required to report whether it believes each deployment request is (or is not) valid. *See* Waiver Order at ¶32. On March 24, 2003, Nextel filed a letter in WT Docket No. 03-76 stating that Nextel has been and continues to be in contact with PSAPs that have requested Phase I or Phase II service and will deploy these PSAPs as soon as possible pursuant to a mutually agreeable implementation schedule. Thus, Nextel is complying herein with the Commission's requirement that it mark as "valid" or "invalid" each PSAP request, although as a practical matter, Nextel's deployment team

reasons hindering deployment within the first six months of a PSAP's request and comments.[15] The proposed deployment dates in the Appendix are *target launch dates, which Nextel and the relevant PSAP are striving to meet*. Nextel is in contact with each of these PSAPs and is working to deploy Phase I E911 as soon as possible. Nextel has fully deployed Phase I E911 service with 1083 PSAPs, which are listed in the Appendix. With regard to its Phase I deployment efforts, Nextel reiterates herein that in some cases Phase I E911 deployments, similar to Phase II deployments, continue to be complicated by a number of factors – many of which are outside of Nextel's control.

D. Phase II Requests

At the same time Nextel is deploying Phase I, it continues to deploy Phase II at those PSAPs capable of receiving and using the specific location information transmitted via Nextel's Phase II solution.[16] The Appendix lists every pending Phase II request and the Commission's required information including the PSAP ID, PSAP name, PSAP state, PSAP county, request date, whether the request is valid,[17] a projected deployment date, reasons hindering deployment within the first six months of a PSAP's request and comments. Nextel currently has 675 pending Phase II requests.

Similar to Phase I deployments, the proposed Phase II deployment dates in the Appendix are *target launch dates, which Nextel and the relevant PSAP are striving to*

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is working with each PSAP's Phase I and Phase II pending request listed in the Appendix to deploy them as soon as possible pursuant to a mutually agreed-upon time frame.

[15] In some cases there are delays caused by technology issues. Such delays do not necessarily mean that the PSAP or Nextel is not "ready" for Phase I service. Rather, it often means there are issues involving incompatible technologies between Nextel, the LEC and/or the PSAP.

[16] Nextel has available to PSAPs two different methodologies for transmitting Phase II information—Emergency Service Routing Keys ("ESRK") and Emergency Services Routing Digits ("ESRD"). Nextel is currently working toward improving its ESRK platform at the request of certain PSAPs. Such improvements are expected in the first half of 2005.

[17] *See supra* note 14.

meet.[18] Nextel reiterates that accomplishing such deployments is subject to numerous factors and parties outside of Nextel's control; thus, Nextel's deployment schedule establishes a goal toward which Nextel will work. It is possible, however, that complexities may be encountered that could delay some PSAP deployments. Nextel is in contact with each of these PSAPs and is working to deploy Phase II E911 as soon as possible within mutually agreed upon time frames. Nextel will continue to dedicate significant resources to maintain its aggressive roll out schedule to PSAPs that are capable of receiving and using location technology.

Since October 1, 2002, its first implementation benchmark, Nextel has deployed Phase II service with 619 PSAPs, which are included in the Appendix. Nextel remains actively engaged with multiple PSAPs and anticipates deploying Phase II service in additional areas in the near future consistent with mutually agreeable timeframes.

Despite successful Phase II deployments in numerous areas such as Massachusetts, the District of Columbia; New Orleans; New York City; Miami-Dade, Florida; Houston, Texas; King County, Washington; and Denver, Colorado, the vast majority of PSAPs throughout the country are not ready to receive and use ALI for various reasons, some of which are outside a PSAP's direct control, *e.g.* lack of local, state and federal funding as well as a lack of E911 coordination bodies. Given the *status quo*, the majority of PSAPs in the country likely will not be prepared to receive or use ALI in the foreseeable future. Similarly, the majority of PSAPs in which Nextel provides service will likely not be prepared to receive or use ALI in the foreseeable future.

[18] The A-GPS software defect delayed a few deployments while the network and handset software solutions were being developed. However, the speed with which Nextel was able to deploy the fix in its network and in handsets within Nextel's control (i.e, in inventory) ensured that PSAP deployment schedules were minimally impacted.

Therefore, despite Nextel's efforts to meet the handset penetration goals, only a limited number of its subscribers will realize the benefits of Phase II deployment in the near future.

E. December 31, 2005, Benchmark

As Nextel stated in its August 2, 2004, Report, Nextel may not meet the December 31, 2005, benchmark of 95% A-GPS handset penetration. After months of careful evaluation of customer trends, upgrade activity and continued low churn rates on Nextel's network, it has become evident that turning over nearly all of Nextel's users to an A-GPS enabled handset (despite currently activating nearly 100% A-GPS handsets) probably will not be achievable. The current software defect affecting all of Nextel's A-GPS handsets has significantly exacerbated this situation for Nextel, given that Nextel must now reflash the software in handsets that it previously had counted toward achieving the December 31, 2005, benchmark. Nextel will continue to follow up with additional information regarding its A-GPS handset penetration once it better understands the challenges associated with upgrading the software in the A-GPS handsets already deployed across Nextel's network.

F. BlackBerry Model 7510 Inventory

Nextel anticipates that it may have a *de minimis* number of non-A-GPS capable BlackBerry model 7510 handsets on hand as of December 1, 2004. Whatever remaining devices that may be activated after December 1, 2004, and prior to February 1, 2005, will constitute less than 0.15% of total active units.

Projecting handset unit sales is an inexact science at best. Assumptions regarding growth, churn, underlying marketplace conditions, availability of newer handsets, and the

success of various marketing campaigns, all factor in to the amount of a particular model of handset to order from an equipment manufacturer. Properly predicting these factors is particularly difficult when making a "last-time buy" from the vendor because this purchasing decision is made many months in advance to ensure that the handset vendor has on hand sufficient component parts to supply a sufficient number of handsets through the period that Nextel will continue to market and sell that particular model. Purchasing decisions made on the basis of these fluid factors are necessarily the result of an estimation of the future movements of these factors. In the case of the BlackBerry 7510, Nextel made its last-time buy in February of this year, ten months prior to this benchmark. Although the last-time buy was based on a plan to sell out all BlackBerry 7510s *prior to* December 1, and although Nextel plans to offer significant incentives and promotions in an attempt to sell through the 7510 inventory prior to December 1, Nextel will likely have a small inventory of 7510s still on hand as of December 1.

Nextel and its vendor, Research in Motion Limited ("RIM"), have worked diligently to produce the next model of BlackBerry, which will be A-GPS capable, and will be available as of December 1, 2004. This represents a significant achievement given that this will be the first BlackBerry iDEN unit with integrated GPS capabilities. The production and development of this unit required the cooperation of Motorola, RIM, and Nextel. In addition to the additional hardware required to support GPS, software in the new BlackBerry must be updated as well—tasks rendered all the more complex by the need for three companies to collaborate on the creation of a single device capable of operating on the unique iDEN infrastructure.

Nextel has a clear path to full compliance with the rule: in the coming weeks it will offer for sale an almost identical model BlackBerry that *is* A-GPS capable, and it will offer significant incentives to customers to encourage the sale of the remaining inventory of BlackBerry 7510s as quickly as possible. Finally, Nextel estimates it will come extremely close to full compliance: the remaining inventory of BlackBerry 7510s constitutes, on a per-unit basis, only 0.15% of the total number of handsets in use by our customers.

Nextel notes that in Sprint's August 1, 2003, quarterly report, Sprint informed the Commission that it had not quite sold through its inventory of non A-GPS capable handsets prior to its 100% activation deadline.[19] At that time, it noted that all of its new handset sales would have been only GPS-enabled devices but for an "extremely limited" amount of older inventory. Specifically, as of the date of its 100% activation benchmark, 99.5% of handset activations from Sprint controlled outlets were of GPS-enabled handsets, and Sprint also noted that it had an "extremely limited" number of non-GPS capable "data centric" devices on hand.[20] The current situation facing Nextel is almost identical to that of Sprint, and Nextel notes that the Commission took no action with respect to Sprint's statements in its August 1, 2003, quarterly report.

CONCLUSION

As required in the Waiver Order,[21] Nextel is providing this Quarterly Report to the Executive Directors and counsel of the Association of Public Safety Communications

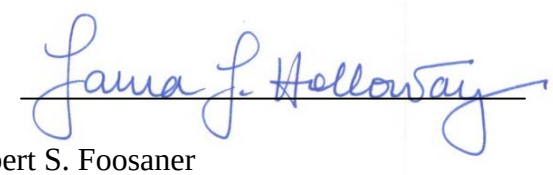
[19] *See* Sprint Corporation Seventh Quarterly E911 Implementation Report, CC Docket 94-102, filed August 1, 2003, at 8. Sprint was required to sell 100% A-GPS capable handsets as of June 30, 2003.

[20] *Id.* at 8 & n.11. It is unclear if Sprint included in its 99.5% new handset activation statistic the sale of these data-centric devices, or whether this number consisted solely of more traditional wireless handsets.

[21] Waiver Order at ¶32.

Officials-International, Inc. ("APCO"), the National Emergency Number Association ("NENA") and the National Association of State Nine One One Administrators ("NASNA"). Should any of these organizations or their individual PSAP members have questions or concerns about Nextel's submission, Nextel encourages them to contact Laura Holloway, at the number listed below, as soon as possible to facilitate rapid and efficient deployment of Nextel's Phase I and Phase II E911 services.

Respectfully submitted,
Nextel Communications, Inc.

By: 

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